

### **REMARKS**

Claims 1-20 and 22-30 are currently pending in the subject application and are presently under consideration. Claims 1, 22, 26 and 30 have been amended as shown on pages 2-8 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Objection of Claims 1-16**

Claims 1-16 stand objected to because of the following informalities: claim 1 recites “a machine learning component that determines anticipated authentication challenges to resource requests from applications based upon run-time learning during previous resource requests by application”. Although applicants’ representative believes that the specification clearly supports a machine learning component as evidenced, for example, by the disclosure in the specification on page 14, lines 16-25 of the system performing run-time learning, claim 1 has been amended to remove the term “machine” to advance prosecution. Therefore, this rejection should be withdrawn.

#### **II. Rejection of Claims 1-20, 22-26, and 30 Under 35 U.S.C §112**

Claims 1-20, 22-26, and 30 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, due to the newly added limitation “run-time learning”. The specification on page 14, line 18 clearly discloses run-time learning. It is well known in the art that run-time learning in computer systems represents automatically performing learning during execution of the system. Accordingly, withdrawal of this rejection is respectfully requested.

#### **III. Rejection of Claims 1-5, 13, 16-18, and 30 Under 35 U.S.C. §103(a)**

Claims 1-5, 13, 16-18, and 30 stand rejected under 35 U.S.C. §103(a) as being obvious over Wu *et al.* (US 5,774,551) in view of caching as illustrated by Hamilton (Caching, <http://www.net.lut.ac.uk/eval/node6.html>), Michel (US 2002/0133570) and Lafer *et al.* (US 6,192,382). It is respectfully submitted that this rejection should be withdrawn for at least the

following reasons. Wu *et al.*, Hamilton, Michel and Lafer *et al.*, alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants' claimed invention relates to a system and method that simplifies writing a program that will respond to challenges from various authentication systems. The system provides for treating various authentication systems in a generic manner so that it does not require recompiling and recoding of an application to interact with different authentication systems. In addition, the subject claims disclose run-time learning that allows the system to anticipate authentication challenges and prepare responses in advance. For example, when system A is trying to connect to system B, the system can predict that system B will issue an authentication challenge and prepare a response in advance of system A receiving the actual challenge. This can reduce the time required to complete authentication. In particular, independent claims 1, 16 and 30 recite similar limitations namely ***a learning component that determines anticipated authentication challenges to resource requests from applications based on responses generated during previous resource requests by applications.*** The cited references are silent about such novel aspects of the subject claims.

Wu *et al.* provides an application programming interface that mediates between the system entry services and the account management services on a computer. On page 5 of the Office Action, the Examiner concedes that Wu *et al.* fails to teach determining anticipated requests from applications based upon responses generated during previous resource requests by applications. The Examiner compensates for the aforementioned deficiencies of Wu *et al.* with Hamilton, Michel, and Lafer *et al.* However the cited prior art references are all silent regarding

authentication challenges and also do not disclose anticipating such challenges such that an appropriate response can be generated in advance of receiving the challenge. Hamilton, Michel, and Lafer *et al.* are all reactive systems that merely cache previously requested web pages and wait for a similar future request to employ cached pages. Hamilton provides a technique of caching where a copy of the responses to requests are stored and reused when there is a new request for the same information. The cited document does not teach anticipating authentication challenges, let alone ***a learning component that determines anticipated authentication challenges to resource requests from applications based on responses generated during previous resource requests by applications.***

Michel discloses a method for accessing requested web content data that is stored in a network of distributive caches and is identified by a uniform resource locator. At the cited portion, the cited document provides a local web cache that stores frequently requested web content data received from a distal web cache and retrieving data from a web cache in response to web requests. Michel does not teach anticipating authentication challenges, let alone a ***learning component that determines anticipated authentication challenges to resource requests from applications based on responses generated during previous resource requests by applications.***

Lafer *et al.* provides a system for web page construction and distribution in which personalization of individual pages is done, by locating a tag cache in a server and embedding associated tags into stored pages. At the cited portion, the cited document discloses a request from a user for information in the form of a HTML page. The system checks to see if the page has been cached, then the cached page is sent to the user. If the page has not been cached, it is constructed and then sent to the user. Nowhere does the cited document teach anticipating authentication challenges, let alone ***a learning component that determines anticipated authentication challenges to resource requests from applications based on responses generated during previous resource requests by applications.***

At page 5 of the Office Action, the Examiner states that it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Hamilton, Michel and Lafer *et al.* with Wu *et al.* But Hamilton, Michel and Lafer *et al.* teach caching pages that are generated when a user requests information and the cached pages are sent to the user when the same request is generated subsequently. The cited documents are silent regarding authentication and

do not perform any type of anticipatory analysis, let alone disclose ***a learning component that determines anticipated authentication challenges to resource requests from applications based on previous responses generated during previous resource requests*** as taught by the subject claims.

In view of the above, Wu *et al.*, Hamilton, Michel, and Lafer *et al.*, alone or in combination, fail to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 16, and 30 (and the claims that depend from) and thus fail to make obvious or suggest the subject claims. Therefore, it is requested that this rejection should be withdrawn.

#### **IV. Rejection of Claims 6-7, 22-23, and 26 Under 35 U.S.C. §103(a)**

Claims 6-7, 22-23, and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wu *et al.* (US 5,774,551) in view of caching as illustrated by Hamilton (Caching, <http://www.net.lut.ac.uk/eval/node6.html>), Michel (US 2002/0133570) and Lafer *et al.* (US 6,192,382) and further in view of Travis *et al.* (US 6,269,367). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Wu *et al.*, Hamilton, Michel, Lafer *et al.* and Travis *et al.* alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Independent claims 1, 22 and 26 recite similar limitations namely ***a learning component that determines anticipated authentication challenges to resource requests from applications based on responses generated during previous resource requests by applications, generating a pre-authentication challenge test message based upon anticipating an authentication challenge to a resource request from an application based on responses generated during previous resource requests by applications***. As discussed *supra*, Wu *et al.*, Hamilton, Michel and Lafer *et al.* do not teach all aspects of the subject claims. Travis *et al.* does not compensate for the aforementioned deficiencies. Travis *et al.* discloses a system for identifying code fragments in a program and correcting the code fragments. Nowhere does Travis *et al.* provide ***generating a pre-authentication challenge test message based upon anticipating an authentication challenge to a resource request from an application based on responses generated during previous resource requests by applications*** as taught by the subject claims.

In view of the above, Wu *et al.*, Hamilton, Michel, and Lafer *et al.*, alone or in combination, fail to teach or suggest all limitations of applicants' invention as recited in independent claims 1, 22, and 26 (and the claims that depend from). Therefore, it is requested that this rejection should be withdrawn

**V. Rejection of Claims 8-12, 14-15, 19-20 and 24-25 Under 35 U.S.C. §103(a)**

Claims 8-12, 14-15, 19-20 and 24-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wu *et al.* (US 5,774,551) in view of caching as illustrated by Hamilton (Caching, <http://www.net.lut.ac.uk/eval/node6.html>), Michel (US 2002/0133570) and Lafer *et al.* (US 6,192,382) and further in view of Travis *et al.* (US 6,269,367) and Object Oriented Programming as illustrated by Burroughs *et al.* (US 5,878,411), Kumar *et al.* (US 6,343,287), Microsoft Press (Microsoft Press, "Computer Dictionary, 3<sup>rd</sup> edition, ISBN: 157231446X, 1997) and New Rider (New Rider, "Windows 98 Professional Reference", <http://cma.zdnet.com/book/win98prfref/ch15/ch15.htm>). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Wu *et al.*, Hamilton, Michel, Lafer *et al.*, Travis *et al.*, Burroughs *et al.*, Kumar *et al.*, Microsoft Press and New Rider alone or in combination, do not teach or suggest each and every limitation of applicants' claimed invention.

Claims 8-12, 14, 15, 19, 20, 24 and 25 depend from independent claims 1, 16 and 22. As noted *supra*, Wu *et al.*, Hamilton, Michel, Lafer *et al.* and Travis *et al.* do not teach or suggest each and every element of the subject invention as recited in these independent claims and Burroughs *et al.*, Kumar *et al.*, Microsoft Press and New Rider fails to make of for the deficiencies with regard to these independent claims. Accordingly, it is respectfully requested that this rejection be withdrawn.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP202US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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